



98-29-05

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Application No. : 10/734,609
Confirmation No. : 9335
Applicant: : Smith et al.
Filed: : December 12, 2003
Group Art Unit : 1648
Examiner: : Salvoza, M. Franco G.
For : Alpha Virus Particles and Methods for Preparation
Docket No. : 79-02
Customer No. : 23713

SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT

MAIL STOP AMENDMENT
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

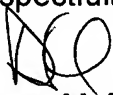
Sir:

Further to the Information Disclosure Statement filed October 14, 2004, the Examiner is respectfully requested to consider the additional references, copies enclosed, which may qualify as prior art. For the Examiner's Convenience, the references are listed on the attached Patent and Trademark Office Form PTO-1449. Pursuant to the Waiver of the Copy Requirement in 37 C.F.R. 1.98 for Cited Pending U.S. Patent Applications signed on September 21, 2004 and published on www.uspto.gov on September 24, 2004, copies of pending U.S. applications that are available in the Image File Wrapper system are not submitted, but will be provided on request.

This information is cited in a spirit of forthrightness and cooperation to enable the applicants to obtain that measure of protection for the invention to which there is entitlement. However, no representation is made that the listed art actually qualifies as prior art under the patent statute and the mere use of PTO-1449 is not an admission that all listed references are prior art. No representation is made that applicants know of the best art.

This submission is accompanied by a check in the amount of \$180 as required under 37 CFR 1.97(c). If this amount is incorrect, please charge any deficiency or credit any overpayment to deposit account 07-1969.

Respectfully submitted,



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Attorney Docket No. 79-02
lem:August 26, 2005

Substitute for form 1449/PTO, based on PTO/SB/08A and 08B

**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**

Application Number	10/734,609
Filing Date	12/12/2003
First Named Inventor	Smith et al.
Art Unit	1648
Examiner Name	Michael M. McGaw
Attorney Docket Number	79-02

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U.S. PATENT DOCUMENTS

Examiner Initial*	Cite No. ¹	Document Number (US-)	Publication Date (MM-DD-YYYY)	Name	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear (or entire document unless noted otherwise)
	1	6,844,188	01/18/2005	MacDonald et al.	
	2	6,783,939	08/31/2004	Olmsted et al.	
	3	6,583,121	06/24/2003	Johnston et al.	
	4	6,451,592	09/17/2002	Dubensky, Jr. et al.	
	5	6,426,196	07/30/2002	Dubensky, Jr. et al.	
	6	6,391,632	05/21/2002	Dubensky, Jr. et al.	
	7	6,376,236	04/23/2002	Dubensky, Jr. et al.	
	8	6,342,372	01/29/2002	Dubensky, Jr. et al.	
	9	6,329,201	12/11/2002	Polo et al.	
	10	6,261,570	07/17/2002	Parker et al.	
	11	6,224,879	05/01/2002	Sjoberg et al.	
	12	6,156,558	12/05/2000	Johnston et al.	
	13	6,146,874	11/14/2000	Zolotukhin et al.	
	14	6,015,694	01/18/2000	Dubensky, Jr. et al.	
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	25	2005/0123555	06/09/2005	Olmsted et al.	
	26	2005/0054107	03/10/2005	Chulay et al.	
	27	2004/0235133	11/25/2004	Frolov et al.	
	28	2004/0029278	02/12/2004	Dubensky et al.	
	29	2003/0232035	12/18/2003	Dubensky et al.	
	30	2003/0148262	08/07/2003	Polo et al.	
	31	2003/0119182	06/26/2003	Smith et al.	
	32	2002/0141975	10/03/2002	Olmsted et al.	

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	Examiner Name	Michael M. McGaw
	Attorney Docket Number	79-02

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FOREIGN PATENT DOCUMENTS

Examiner Initial*	Cite No. ¹	Foreign Patent Document Number (include WIPO country code)	Publication Date (MM-DD-YYYY)	Name	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear (or entire document unless noted otherwise)	T ²
	33	WO 04/085660	10/07/2004	Smith et al.		
	34	WO 03/023026 A	03/20/2003	Smith et al.		
	35	WO 02/20721	03/14/2002	Johnston et al.		
	36	WO 00/61772	10/19/2000	Polo et al.		
	37	WO 00/39318	07/06/2000	Polo et al.		
	38	WO 96/37616	11/28/1996	Johnston et al.		
	39	WO 96/37220	11/28/1996	Johnston et al.		
	40	WO 96/17072	06/06/1996	Dubensky, Jr. et al.		
	41	WO 95/31565	11/23/1995	Sjoberg et al.		
	42	WO 95/27044	10/12/1995	Liljestrom et al.		
	43	WO 95/07994	03/23/1995	Dubensky, Jr. et al.		
	44	WO 92/10578	06/25/1992	Garoff et al.		

NON-PATENT LITERATURE DOCUMENTS

Examiner Initial*	Cite No. ¹	REFERENCE Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
	45	Barouch et al. (2000) "Augmentation of Immune Responses to HIV-1 and Simian Immunodeficiency Virus DNA Vaccines by IL-2/Ig Plasmid Administration in Rhesus Monkeys," <i>Proc. Natl. Acad. Sci. USA</i> 97(8):4192-4197	
	46	Berglund et al. (1993) "Semliki Forest Virus Expression System: Production of Conditionally Infectious Recombinant Particles," <i>Bio/Technology</i> 11:916-920	
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	50	Caley et al. (1999) "Venezuelan Equine Encephalitis Virus Vectors Expressing HIV-1 Proteins: Vector Design Strategies for Improved Vaccine Efficacy," <i>Vaccine</i> 17:3124-3135	
	51	Chappell et al. (Feb. 2000) "A 9-nt Segment of a Cellular mRNA can Function as an	

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Sheet 3 of 8

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		Internal Ribosome Site (IRES) and When Present in Linked Vaccine Efficacy," <i>Proc. Natl. Acad. Sci. USA</i> 97(4):1536-1541	
	52	Corsini et al. (1996) "Efficiency of Transduction by Recombinant Sindbis Replicon Virus Varies Among Cell Lines, Including Mosquito Cells and Rat Sensory Neurons," <i>BioTechniques</i> 21(3):492-497	
	53	Cutler et al. (1986) "Mutants of the Membrane-binding Region of Semliki Forest Virus E2 Protein.I. Cell Surface Transport and Fusogenic Activity," <i>J. Cell Biol.</i> 102:889-901	
	54	Davis et al. (1993) "A Genetically Engineered Live Virus Vaccine for Venezuelan Equine Encephalitis," <i>J. Cell Biochem. Supp</i> O No.17 part D, Abstract N404	
	55	Davis et al. (1996) "A Viral Vaccine Vector that Expresses Foreign Genes in Lymph Nodes and Protects Against Mucosal Challenge," <i>J. Virol.</i> 70:3781-3787	
	56	Davis et al. (1995) "Attenuated Mutants of Venezuelan Equine Encephalitis Virus Containing Lethal Mutations in the PE2 Cleavage Signal Combined with a Second-Site Suppressor Mutation in E1," <i>Virol.</i> 212:102-110	
	57	Davis et al. (1991) "Attenuating Mutations in the E2 Glycoprotein Gene of Venezuelan Equine Encephalitis Virus: Construction of Single and Multiple Mutants in a Full-Length cDNA Clone," <i>Virol.</i> 183:20-31	
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	62	Davis et al. (1994) "A Molecular Genetic Approach to the Study of Venezuelan Equine Encephalitis Virus Pathogenesis," <i>Arch. Virol.</i> 9:99-109	
	63	Dubensky et al. (1996) "Sindbis Virus DNA-Based Expression Vectors: Utility for in Vitro and in Vivo Gene Transfer," <i>J. Virol.</i> 70:508-519	
	64	Dubuisson et al. (1993) "Sindbis Virus Attachment: Isolation and Characterization of Mutants With Impaired Binding to Vertebrate Cells," <i>J. Virol.</i> 67:3363-3374	
	65	Favre et al. (1993) "Semliki Forest Virus Capsid Protein Expressed by a Baculovirus Recombinant," <i>Arch. Virol.</i> 132:307-319	
	66	Feyzi et al (1997) "Structural Requirement of Heparan Sulfate for Interaction with Herpes Simplex Virus Type 1 Virions and Isolated Glycoprotein C," <i>J. Biol. Chem.</i> 272(40):24850-24857	

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		First Named Inventor	Smith et al.
		Art Unit	1648
		Examiner Name	Michael M. McGaw
		Attorney Docket Number	79-02

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	67	Garoff et al. (1983) "Expression of Semliki Forest Virus Proteins from Cloned Complementary DNA. II. The Membrane-Spanning Glycoprotein E2 is Transported to the Cell Surface Without its Normal Cytoplasmic Domain," <i>J. Cell Biol.</i> 97:652-658	
	68	Geigenmuller-Gnirke et al. (1991) "Complementation Between Sindbis Viral RNAs Produce Infectious Particles with a Bipartite Genome," <i>Proc. Natl. Acad. Sci. USA.</i> 88:3253-3257	
	69	Gingras et al. (1996) "Activation of the Translational Suppressor 4E-BP1 Following Infection with Encephalomyocarditis Virus and Poliovirus," <i>Proc. Natl. Acad. Sci. USA</i> 93:5578-5583	
	70	Gradi et al. (1998) "Proteolysis of Human Eukaryotic Translation Initiation Factor eIF4GII, but Not eIF4GI, Coincides with the Shutoff of Host Protein Synthesis after Poliovirus Infection," <i>Proc. Natl. Acad. Sci. USA</i> 95:11089-11094	
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	74	Herweijer et al. (1997) "Self-Amplifying Vectors for Gene Delivery," <i>Adv. Drug Rev.</i> 27:5-16	
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	77	Hodgson et al. (1993) "Expression of Venezuelan Equine Encephalitis Viral Proteins by Recombinant Baculoviruses," <i>Am. J. Trop. Med. Hygiene</i> 49:195-196	
	78	Holcik et al. (2000) "Functional Characterization of the X-Linked Inhibitor of Apoptosis (XIAP) Internal Ribosome Entry Site Element: Role of La Autoantigen in XIAP Translation," <i>Mol. Cell. Biol.</i> 20(13):4648-4657	
	79	Holcik et al. (1999) "A New Internal-Ribosome-Entry-Site Motif Potentiates XIAP-Mediated Cytoprotection," <i>Nature Cell Biol.</i> 1:190-192	
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	81	International Search Report of International Application Serial No. PCT/US02/28610 filed September 6, 2002	
	82	International Search Report Corresponding to PCT/US 2004/008458 Filed October	

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		25, 2004	
	83	Jalanko (1985) "Expression of Semliki Forest Virus Capsid Protein from SV40 Recombinant Virus," <i>FEBS Lett.</i> 186:59-64	
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	91	Kondor-Koch et al. (1983) "Expression of Semliki Forest Virus Proteins from Cloned Complementary DNA. I. The Fusion Activity of the Spike Glycoprotein," <i>J. Cell. Biol.</i> 97(3):644-651	
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	93	Lemm et al. (1994) "Polypeptide Requirements for Assembly of Functional Sindbis Virus Replication Complexes: A Model for the Temporal Regulation of Minus- and Plus-Strand RNA Synthesis," <i>EMBO J.</i> 13:2925-2934	
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	96	Liljestrom et al. (1991) "A New Generation of Animal Cell Expression Vectors Based on the Semliki Forest Virus Replicon," <i>BioTechnology</i> 9:1356-1361	
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		1240	
	99	Lundstrom et al. (1985) "Secretion of Semliki Forest Virus Membrane Glycoprotein E1 from <i>Bacillus subtilis</i> ," <i>Virus Res.</i> 2:69-83	
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	107	Paredes et al. (1993) "Three-Dimensional Structure of a Membrane-Containing Virus," <i>Proc. Natl. Acad. Sci. USA</i> 90:9095-9099	
	108	Polo et al. (1990) "Attenuating Mutations in Glycoproteins E1 and E2 of Sindbis Virus Produces a Highly Attenuated Strain When Combined <i>In Vitro</i> ," <i>J. Virol.</i> 64:4438-4444	
	109	Presley et al. (1991) "Proteolytic Processing of the Sindbis Virus Membrane Protein Precursor PE2 is Nonessential for Growth in Vertebrate Cells but is required for Efficient Growth in Invertebrate Cells," <i>J. Virol.</i> 65:1905-1909	
	110	Pugachev et al. (2000) "Development of a Rubella Virus Vaccine Expression Vector: Use of a Picornavirus Internal Ribosome Entry Site Increases Stability of Expression," <i>J. Virol.</i> 74:10811-10815	
	111	Pushko et al. (Dec. 2001) "Individual and Bivalent Vaccines Based on Alphavirus Replicons Protect Guinea Pigs Against Infection with Lassa and Ebola Viruses," <i>J. Virol.</i> 75(23):11677-11685-	
	112	Pushko et al. (1997) "Replicon-Helper Systems from Attenuated Venezuelan Equine Encephalitis Virus: Expression of Heterologous Genes <i>In Vitro</i> and Immunization Against Heterologous Pathogens <i>In Vivo</i> ," <i>Virol.</i> 239:389-401	
	113	Rayner et al. (Sept. 2002) "Alphavirus Vectors and Vaccination," <i>Rev. Med. Virol.</i> 12(5):279-296	
	114	Rice et al. (1985) "Expression of Sindbis Virus Structural Proteins via Recombinant Vaccinia Virus: Synthesis, Processing, and Incorporation into Mature Sindbis Virions,"	

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		<i>J. Virol.</i> 56:227-239	
	115	Riedel (1985) "Different Membrane Anchors Allow the Semliki Forest Virus Spike Subunit E2 to Reach the Cell Surface," <i>J. Virol.</i> 54:224-228	
	116	Roberts et al. (1997) "Complementation of Defective Picornavirus Internal Ribosome Entry Site (IRES) Elements by the Coexpression of Fragments of the IRES," <i>Virol.</i> 227:53-62	
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	133	Wang et al. (2000) "Core Protein-Coding Sequence, But Not Core Protein, Modulates	

Examiner Signature		Date Considered	
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*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

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INFORMATION DISCLOSURE STATEMENT BY APPLICANT	Substitute for form 1449/PTO, based on PTO/SB/08A and 08B	Application Number	10/734,609
		Filing Date	12/12/2003
		First Named Inventor	Smith et al.
		Art Unit	1648
		Examiner Name	Michael M. McGaw
		Attorney Docket Number	79-02

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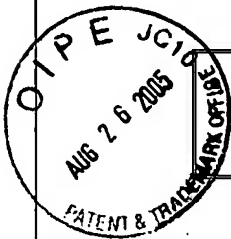
Examiner Initial*	Cite No. ¹	REFERENCE		T ²
		Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.		
		the Efficiency of Cap-Independent Translation Directed by the Internal Ribosome Entry Site of Hepatitis C Virus," <i>J. Virol.</i> 74(23):11347-11358		
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	137	Williamson et al. (Feb. 2003) "Characterization and Selection of HIV-1 Subtype C Isolates for Use in Vaccine Development," <i>AIDS Research and Human Retroviruses</i> 19(2):133-144		
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Attorney Docket No.: 79-02

Application No. : 10/734,609
Applicant: : Smith et al.
Filed: : December 12, 2003
For: : Alpha Virus Particles and Methods for Preparation

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